

**LAW OFFICES  
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.**

Stanford Research Park  
700 Hansen Way  
Palo Alto, CA 94304

Telephone  
(650) 849-6600

Facsimile  
(650) 849-6666

**FACSIMILE TRANSMITTAL**

**TO**

**Name:** Examiner Diana B. Johannsen  
**Firm:** USPTO  
**Fax No.:** 703-746-5064  
**Phone No.:** 703-305-0761  
**Subject:** Reissue Appln of Collins et al.  
**Your File No.:** Appln No. 09/533,906

**FROM**

**Name:** Jean B. Fordis  
**Phone No.:** 650-849-6607  
**Fax # Verified by:** jbf  
**# Pages (incl. this):** 19  
**Date:** April 10, 2002  
**Our File No.:** 01147-0142

**Confirmation Copy to Follow: ~~Yes~~ No**

**Message:**

Per our discussion on the telephone today, we attach a draft Amendment for your consideration.

09533906-01147-01

**If there is a problem with this transmission, notify fax room at (650) 849-6600 or the sender at the number above.**

**This facsimile is intended only for the individual to whom it is addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If you have received this facsimile in error, please notify the sender immediately by telephone (collect), and return the original message by first-class mail to the above address.**

**DRAFT**

PATENT  
Customer Number 22,852  
Attorney Docket No. 1147-0142

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:	)	
U.S. Patent No. 5,750,338	)	
	)	
Mark L. Collins et al.	)	Group Art Unit: 1655
	)	
Reissue Serial No.: 09/533,906	)	Examiner: D. Johannsen
	)	
Reissue Application Filed: March 8, 2000	)	
	)	
For: TARGET AND BACKGROUND	)	
CAPTURE METHODS WITH	)	
AMPLIFICATION FOR AFFINITY	)	
ASSAYS	)	

**REISSUE LITIGATION BOX**  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

**SUPPLEMENTAL AMENDMENT**

Further to the Amendment submitted on March 8, 2002, the draft proposed Examiner's Amendment forwarded by facsimile on March 28, 2002, the Interview of April 2, 2002, and the Interview Summary forwarded by facsimile on April 3, 2002 (but not yet mailed), the Patent Owner requests that the application be amended as follows:

**IN THE CLAIMS**

In the originally issued claims 1-40, please cancel claims 20-26 without prejudice. Please amend original claims 1, 4-7, 10-14, 16-19, 27-30, 32, 34-36, and 38-39 as follows:

1. (Twice Amended) A method for amplifying a target polynucleotide contained in a sample comprising the steps of:

(a) contacting the sample with a first support which binds to the target polynucleotide;

09533906-01601

09533906-01601

(b) substantially separating the support and bound target polynucleotide from the sample, thereby producing a separated target polynucleotide; and

(c) amplifying in vitro the separated target polynucleotide of (b).

4. (Amended) The method of claim 1 wherein [the target polynucleotide is amplified with a polymerase] said amplifying in vitro comprises amplifying said separated target polynucleotide with a polymerase.

5. (Amended) The method of claim 4 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase [or Q $\beta$  replicase].

6. (Amended) The method of claim 4 wherein the separated target polynucleotide is a DNA polynucleotide and the polymerase is a DNA polymerase.

7. (Twice Amended) A method for detecting a target polynucleotide contained in a sample comprising the steps of:

(a) contacting the sample with a first support which binds to the target polynucleotide;

(b) substantially separating the first support and bound target polynucleotide from the sample, thereby producing a separated target polynucleotide;

(c) amplifying in vitro the separated target polynucleotide of (b), thereby producing an amplified target polynucleotide; and

(d) detecting the presence of the amplified target polynucleotide of (c) as indicative of the presence of the target polynucleotide in said sample.

10. (Amended) The method of claim 7 wherein [the target polynucleotide is amplified with a polymerase] said amplifying in vitro comprises amplifying said separated target polynucleotide with a polymerase.

11. (Amended) The method of claim 10 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase [or Q $\beta$  replicase].

12. (Amended) The method of claim 11 wherein the separated target polynucleotide is a DNA polynucleotide and the polymerase is a DNA polymerase.

13. (Amended) The method of claim 7 wherein the amplified target polynucleotide is

contacted with a label, and the presence of the target polynucleotide in the sample is indicated by detection of said label.

14. (Amended) The method of claim 7 wherein the amplified target polynucleotide is contacted with a labeled probe, and the presence of the target polynucleotide in the sample is indicated by detection of said labeled probe.

16. (Amended) The method of claim 15 wherein the [amplified target polynucleotide is contacted with] second support includes a labeled probe, and the presence of the target polynucleotide in the sample is indicated by detection of said labeled probe.

17. (Amended) The method of claim 16 wherein [the target polynucleotide is amplified with a polymerase] said amplifying *in vitro* comprises amplifying said separated target polynucleotide with a polymerase.

18. (Amended) The method of claim 17 wherein the separated target polynucleotide is a DNA polynucleotide and the polymerase is a DNA polymerase.

19. (Three-times Amended) A method for detecting a target polynucleotide contained in a sample comprising the steps of:

(a) contacting the sample with a first support which binds to the target polynucleotide;

(b) substantially separating the first support and bound target polynucleotide from the sample, thereby producing a separated target polynucleotide;

(c) amplifying *in vitro* the [sample] separated target polynucleotide of (b) with a DNA polymerase, thereby producing an amplified target polynucleotide;

(d) contacting the amplified target polynucleotide of (c) with a second support which binds to the amplified target polynucleotide and also with a labeled probe which binds to the amplified target polynucleotide; and

(e) detecting the presence of [the amplified target polynucleotide] the labeled probe as indicative of the presence of the target polynucleotide in said sample.

27. (Twice Amended) A method for amplifying a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with a reagent comprising a first nucleic acid probe which binds to the target polynucleotide to form a probe-target complex;
- (b) contacting the sample medium with a support which binds to the first nucleic acid probe of the probe-target complex;
- (c) substantially separating the support and bound probe-target complex from the sample medium;
- (d) contacting the support and bound probe-target complex with a second medium;
- (e) releasing the probe-target complex into the second medium;
- (f) substantially separating the support from the second medium; and
- (g) amplifying in vitro the target polynucleotide in the probe-target complex present in the second medium.

28. (Twice Amended) A method for detecting a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with <sup>a</sup> reagent comprising a first nucleic acid probe which binds to the target polynucleotide to form a probe-target complex;
- (b) contacting the sample medium with a support which binds to the first nucleic acid probe of the probe-target complex;
- (c) substantially separating the support and bound probe-target complex from the sample medium;
- (d) contacting the support and bound probe-target complex with a second medium;
- (e) releasing the probe-target complex into the second medium;
- (f) substantially separating the support from the second medium;
- (g) amplifying in vitro the target polynucleotide in the probe-target complex present in the second medium; and
- (h) detecting the presence of the target polynucleotide in the second medium as indicative of the presence of the target polynucleotide in said sample.

29. (Amended) The method of detecting a target polynucleotide of claim 28 wherein [the

3 053306 071601

target polynucleotide is amplified with a polymerase] said amplifying in vitro comprises amplifying said target polynucleotide with a polymerase.

30. (Amended) The method for detecting a target polynucleotide of claim 29 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase[, or Q $\beta$  replicase].

32. (Amended) The method for amplifying a target polynucleotide of claim 27 wherein [the target polynucleotide is amplified with a polymerase] said amplifying in vitro comprises amplifying said target polynucleotide with a polymerase.

34. (Twice Amended) A method for amplifying a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with a support and a probe which binds to the target polynucleotide and the support;
- (b) substantially separating the support and bound probe and target polynucleotide from the sample medium;
- (c) contacting the support and bound probe and target polynucleotide with a second medium;
- (d) releasing the target polynucleotide of (c) into the second medium;
- (e) substantially separating the support and bound probe from the second medium; and
- (f) amplifying in vitro the target polynucleotide present in the second medium.

35. (Twice Amended) The method for amplifying a target polynucleotide of claim 34 wherein [the target polynucleotide is amplified with a polymerase] said amplifying in vitro comprises amplifying said target polynucleotide with a polymerase.

36. (Amended) The method for amplifying a target polynucleotide of claim 35 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase [or Q $\beta$  replicase].

38. (Twice Amended) A method for detecting a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with a support and probe which binds to the target polynucleotide and the support;
- (b) substantially separating the support and bound probe and target polynucleotide from the

- sample medium;
- (c) contacting the support and bound probe and target polynucleotide with a second medium;
  - (d) releasing the target polynucleotide of (c) into the second medium;
  - (e) substantially separating the support and bound probe from the second medium;
  - (f) amplifying in vitro the target polynucleotide present in the second medium, thereby producing an amplified target polynucleotide; and
  - (g) detecting the presence of the amplified target polynucleotide in the second medium as indicative of the presence of the target polynucleotide in said sample.

39. (Amended) The method for detecting a target polynucleotide of claim 38 wherein [the target polynucleotide is amplified with a polymerase] said amplifying in vitro comprises amplifying said target polynucleotide with a polymerase.

Of the claims 41-59 introduced in the Preliminary Amendment of March 8, 2000, claims 41, 44, 47, and 53-59 have been canceled without prejudice. Of the remaining claims, please cancel claim 45 (which was dependent on a canceled claim) without prejudice. Please amend claims 42, 43, 46, 48-52 as follows: (the attached Appendix I identifies the changes from the claims as introduced):

- 42. The amplification method of claim 1 wherein said amplifying in vitro is linear or exponential.
- 43. The amplification method of claim 42 wherein said amplifying in vitro is exponential.
- 46. The amplification method of claim 1 wherein said amplifying in vitro comprises amplifying said separated target polynucleotide with more than one polymerase.
- 48. The detection method of claim 7 wherein said amplifying in vitro is linear or exponential.
- 49. The detection method of claim 48 wherein said amplifying in vitro is exponential.
- 50. The detection method of claim 7 wherein said amplifying in vitro comprises amplifying said separated target polynucleotide with at least one oligonucleotide primer.

FOIA b 7 - D

51. The detection method of claim 50 wherein said amplifying *in vitro* is linear or exponential.
52. The detection method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with more than one polymerase.

The claims 60-63 added by the Preliminary Amendment of July 16, 2001, have already been canceled without prejudice.

Of the claims 64-82 added in the Amendment of March 8, 2002, please cancel claims 68, 69, and 76-82 without prejudice. Please amend claims 64-67 and 71-72 as follows (the attached Appendix I identifies the changes from the claims as introduced):

64. The method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide non-specifically.
65. The method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide specifically.
66. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide non-specifically.
67. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide specifically.
71. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide non-specifically.
72. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide specifically.

Please add new claims 83-86 as follows:

83. The method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with specially tailored primers.



84. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with specially tailored primers.
85. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with specially tailored primers.
86. The method of claim 85 wherein the sample is a clinical sample.

#### REMARKS

The Patent Owner and its representatives wish to express their appreciation to each of the PTO representatives that have participated in the examination of this application. Specifically, the Patent Owner thanks Supervisory Primary Examiner Gary Jones, Special Programs Examiner Julie Burke, Primary Examiner Carla Myers, Primary Examiner Lisa Arthur, and particularly, Examiner Dianna Johansen.

The amendments presented here reflect the draft proposed amendment of March 28, 2002, as discussed and modified during the interview of April 2, 2002, and as reflected in the Interview Summary forwarded by facsimile on April 3, 2002. After these amendments, claims 1-19, 27-40, 42, 43, 46, 48-52, 64-67, 70-75, and 83-86 will be pending. To assist the Office, a clean copy of these pending claims is attached in Appendix II.

As noted during the Interview, the submission of additional claim amendments would necessitate the filing of a supplemental oath/declaration to satisfy the requirements of 35 U.S.C. 251. Accordingly, the Patent Owner is submitting herewith a second supplemental reissue declaration by its representative Norval Galloway that states that:

All errors which are being corrected in the present reissue application up to the time of the filing of this second supplemental oath/declaration, and which are not covered by a prior oath/declaration submitted in this application, arose without any deceptive intent on the part of the Patent Owner and of the inventors.

FOOTNOTES



**Appendix I showing amendments to claims added during prosecution**

42. The amplification method of claim [41] 1 wherein said amplifying in vitro [the amplification] is linear or exponential.
43. The amplification method of claim 42 wherein said amplifying in vitro [the amplification] is exponential.
46. The amplification method of claim [41] 1 wherein [the target polynucleotide is amplified with more than one polymerase] said amplifying in vitro comprises amplifying said separated target polynucleotide with more than one polymerase.
48. The detection method of claim [47] 7 wherein [the amplification] said amplifying in vitro is linear or exponential.
49. The detection method of claim 48 wherein [the amplification] said amplifying in vitro is exponential.
50. The detection method of claim [47] 7 wherein said amplifying in vitro comprises amplifying said [the] separated target polynucleotide [is amplified] with [a polymerase and] at least one oligonucleotide primer.
51. The detection method of claim 50 wherein [the amplification] said amplifying in vitro is linear or exponential.
52. The detection method of claim [47] 7 wherein [the target polynucleotide is amplified with more than one polymerase] said amplifying in vitro comprises amplifying said separated target polynucleotide with more than one polymerase.
64. The method of claim 1 wherein said amplifying in vitro comprises amplifying said [the] separated target polynucleotide [is amplified] non-specifically [with random primers].
65. The method of claim 1 wherein said amplifying in vitro comprises amplifying said [the] separated target polynucleotide [is amplified] specifically [with specially tailored primers].
66. The method of claim 7 wherein said amplifying in vitro comprises amplifying said [the] separated target polynucleotide [is amplified] non-specifically [with random primers].

00533000 071001

00533000 071001

67. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said [the] separated target polynucleotide [is amplified] specifically [with specially tailored primers].

71. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said [the] separated target polynucleotide [is amplified] non-specifically [with random primers].

72. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said [the] separated target polynucleotide [is amplified] specifically [with specially tailored primers].

093306 07501  
109740" 906E560

**Appendix II with clean copy of pending claims**

1. A method for amplifying a target polynucleotide contained in a sample comprising the steps of:
  - (a) contacting the sample with a first support which binds to the target polynucleotide;
  - (b) substantially separating the support and bound target polynucleotide from the sample, thereby producing a separated target polynucleotide; and
  - (c) amplifying *in vitro* the separated target polynucleotide of (b).
2. The method of claim 1 wherein the first support is retrievable.
3. The method of claim 1 wherein the first support includes a probe which binds with the target polynucleotide.
4. The method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with a polymerase.
5. The method of claim 4 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase.
6. The method of claim 4 wherein the separated target polynucleotide is a DNA polynucleotide and the polymerase is a DNA polymerase.
7. A method for detecting a target polynucleotide contained in a sample comprising the steps of:
  - (a) contacting the sample with a first support which binds to the target polynucleotide;
  - (b) substantially separating the first support and bound target polynucleotide from the sample, thereby producing a separated target polynucleotide;
  - (c) amplifying *in vitro* the separated target polynucleotide of (b), thereby producing an amplified target polynucleotide; and
  - (d) detecting the presence of the amplified target polynucleotide of (c) as indicative of the presence of the target polynucleotide in said sample.
8. The method of claim 7 wherein the first support is retrievable.
9. The method of claim 8 wherein the first support includes a probe which binds with the

FOSTAD 9066560

target polynucleotide.

10. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with a polymerase.

11. The method of claim 10 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase.

12. The method of claim 11 wherein the separated target polynucleotide is a DNA polynucleotide and the polymerase is a DNA polymerase.

13. The method of claim 7 wherein the amplified target polynucleotide is contacted with a label, and the presence of the target polynucleotide in the sample is indicated by detection of said label.

14. The method of claim 7 wherein the amplified target polynucleotide is contacted with a labeled probe, and the presence of the target polynucleotide in the sample is indicated by detection of said labeled probe.

15. The method of claim 7 wherein the amplified target polynucleotide is contacted with a second support which binds to the amplified target polynucleotide.

16. The method of claim 15 wherein the second support includes a labeled probe, and the presence of the target polynucleotide in the sample is indicated by detection of said labeled probe.

17. The method of claim 16 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with a polymerase.

18. The method of claim 17 wherein the separated target polynucleotide is a DNA polynucleotide and the polymerase is a DNA polymerase.

19. A method for detecting a target polynucleotide contained in a sample comprising the steps of:

- (a) contacting the sample with a first support which binds to the target polynucleotide;
- (b) substantially separating the first support and bound target polynucleotide from the sample, thereby producing a separated target polynucleotide;

- (c) amplifying *in vitro* the separated target polynucleotide of (b) with a DNA polymerase, thereby producing an amplified target polynucleotide;
- (d) contacting the amplified target polynucleotide of (c) with a second support which binds to the amplified target polynucleotide and also with a labeled probe which binds to the amplified target polynucleotide; and
- (e) detecting the presence of the labeled probe as indicative of the presence of the target polynucleotide in said sample.

[claims 20-26 canceled]

27. A method for amplifying a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with a reagent comprising a first nucleic acid probe which binds to the target polynucleotide to form a probe-target complex;
- (b) contacting the sample medium with a support which binds to the first nucleic acid probe of the probe-target complex;
- (c) substantially separating the support and bound probe-target complex from the sample medium;
- (d) contacting the support and bound probe-target complex with a second medium;
- (e) releasing the probe-target complex into the second medium;
- (f) substantially separating the support from the second medium; and
- (g) amplifying *in vitro* the target polynucleotide in the probe-target complex present in the second medium.

28. A method for detecting a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with reagent comprising a first nucleic acid probe which binds to the target polynucleotide to form a probe-target complex;
- (b) contacting the sample medium with a support which binds to the first nucleic acid probe of the probe-target complex;

FOIA b 7 - D

- (c) substantially separating the support and bound probe-target complex from the sample medium;
- (d) contacting the support and bound probe-target complex with a second medium;
- (e) releasing the probe-target complex into the second medium;
- (f) substantially separating the support from the second medium;
- (g) amplifying *in vitro* the target polynucleotide in the probe-target complex present in the second medium; and
- (h) detecting the presence of the target polynucleotide in the second medium as indicative of the presence of the target polynucleotide in said sample.

29. The method of detecting a target polynucleotide of claim 28 wherein said amplifying *in vitro* comprises amplifying said target polynucleotide with a polymerase.

30. The method for detecting a target polynucleotide of claim 29 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase.

31. The method for detecting a target polynucleotide of claim 30 wherein the polymerase is a DNA polymerase.

32. The method for amplifying a target polynucleotide of claim 27 wherein said amplifying *in vitro* comprises amplifying said target polynucleotide with a polymerase.

33. The method for amplifying a target polynucleotide of claim 32 wherein the polymerase is a DNA polymerase.

34. A method for amplifying a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with a support and a probe which binds to the target polynucleotide and the support;
- (b) substantially separating the support and bound probe and target polynucleotide from the sample medium;
- (c) contacting the support and bound probe and target polynucleotide with a second medium;
- (d) releasing the target polynucleotide of (c) into the second medium;

0953906-071501

04/10/02 18:41:19



- (e) substantially separating the support and bound probe from the second medium; and
- (f) amplifying *in vitro* the target polynucleotide present in the second medium.

35. The method for amplifying a target polynucleotide of claim 34 wherein said amplifying *in vitro* comprises amplifying said target polynucleotide with a polymerase.

36. The method for amplifying a target polynucleotide of claim 35 wherein the polymerase is a DNA polymerase, an RNA polymerase, or a transcriptase.

37. The method for amplifying a target polynucleotide of claim 36 wherein the polymerase is a DNA polymerase.

38. A method for detecting a target polynucleotide contained in a sample medium comprising the steps of:

- (a) contacting the sample medium with a support and probe which binds to the target polynucleotide and the support;
- (b) substantially separating the support and bound probe and target polynucleotide from the sample medium;
- (c) contacting the support and bound probe and target polynucleotide with a second medium;
- (d) releasing the target polynucleotide of (c) into the second medium;
- (e) substantially separating the support and bound probe from the second medium;
- (f) amplifying *in vitro* the target polynucleotide present in the second medium, thereby producing an amplified target polynucleotide; and
- (g) detecting the presence of the amplified target polynucleotide in the second medium as indicative of the presence of the target polynucleotide in said sample.

39. The method for detecting a target polynucleotide of claim 38 wherein said amplifying *in vitro* comprises amplifying said target polynucleotide with a polymerase.

40. The method for detecting a target polynucleotide of claim 39 wherein the polymerase is a DNA polymerase.

[claim 41 canceled]

053906-04501

42. The amplification method of claim 1 wherein said amplifying *in vitro* is linear or exponential.

43. The amplification method of claim 42 wherein said amplifying *in vitro* is exponential.  
[claims 44-45 canceled]

46. The amplification method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with more than one polymerase.  
[claim 47 canceled]

48. The detection method of claim 7 wherein said amplifying *in vitro* is linear or exponential.

49. The detection method of claim 48 wherein said amplifying *in vitro* is exponential.

50. The detection method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with at least one oligonucleotide primer.

51. The detection method of claim 50 wherein said amplifying *in vitro* is linear or exponential.

52. The detection method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with more than one polymerase.  
[claims 53-63 canceled]

64. The method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide non-specifically.

65. The method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide specifically.

66. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide non-specifically.

67. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide specifically.

[claims 68-69 canceled]

FOIA b 7 - D

70. The method of claim 9 wherein the probe first binds with the target polynucleotide by hybridizing to a specific sequence in the target polynucleotide, and then binds to the first support.
71. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide non-specifically.
72. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide specifically.
73. The method of claim 72 wherein the sample is a clinical sample.
74. The method of claim 73 wherein the probe comprises a nucleotide sequence specific to a complementary nucleotide sequence in the target polynucleotide and a homopolymeric tail sequence.
75. The method of claim 74 wherein the support comprises a homopolymeric tail complementary to the homopolymeric tail of the probe.
- [claims 76-82 canceled]
83. The method of claim 1 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with specially tailored primers.
84. The method of claim 7 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with specially tailored primers.
85. The method of claim 70 wherein said amplifying *in vitro* comprises amplifying said separated target polynucleotide with specially tailored primers.
86. The method of claim 85 wherein the sample is a clinical sample.

FOR NO. 906650